CLAIMS:

1. A wet-friction, composite material suitable for use in applications selected from the class consisting of wet transmission couplings, automatic lockers, limited slip differentials, smart clutches, synchronizers, brakes and the like, comprising: a carbon or graphite fabric formed from a woven, continuous, untwisted filament yarn and impregnated with modified cyanate ester resin or oligomers which are subsequently cured.

2. The composite material of Claim 1, in which the modified, cured cyanate ester resin weight in the fabric is at least about 10% by weight of the cured resin based on the combined weight of fabric and cured resin.

3. The composite material of Claim 1, in which the modified cyanate ester resin in the fabric is about 10% - 50% by weight of the cured resin based on the combined weight of fabric and cured resin.

4. The composite material of Claim 1, in which the modified cyanate ester resin in the fabric is about 10% - 35% by weight of the cured resin based on the combined weight of fabric and cured resin.

5. The composite material of Claim 1, in which the modified cyanate ester resin weight in the fabric is about 10% - 25% by weight of the cured resin based on the combined weight of fabric and cured resin.

6. The composite material of Claim 1, in which the modified cyanate ester resin in the fabric is about 10% - 18% by weight of the cured resin based on the combined weight of fabric and cured resin.

7. The composite material of Claim 1, in which the modified cyanate ester resin in the fabric is about 12% - 17% by weight of the cured resin based on the combined weight of fabric and cured resin.

8. The composite material of Claim 1, in which the modified cyanate ester resin in the fabric is about 40% - 50% by weight of the cured resin based on the combined weight of fabric and cured resin.

9. The composite material of Claim 1, provided as a supplied product including an adhesive coating for applying to a metal surface, an adhesive film for application to a metal surface, or a cured fabric without an adhesive coating.

10. The composite material of Claim 1, in which the fabric is formed as a continuous spiral, cut to size and bonded to the transmission in one piece.

11. The composite material of Claim 1, in which the fabric material is selected from the class consisting of carbon, graphite, ceramics, boron, aramid fiber, glass, quartz, silica, and mixtures thereof.

12. The composite material of Claim 1, in which the fabric weave is a plain weave.

13. The composite material of Claim 1, in which the fabric weave includes: braided, 5 and 8 harness satin, basket, twill and, crowfoot satin.

14. The composite material of Claim 1, formed from a prepreg in which the modified cyanate ester resin or oligomer is selected from the class consisting of: polycyanate ester modified with silicone elastomer, polycyanate ester modified with epoxy resin, polycyanate ester modified with polyetherimide, polycyanate ester modified with polyphenoxy resin, polycyanate ester modified with polysulfone or polyether sulfone resins, polycyanate ester modified with polyimide resins, polycyanate ester modified with polycarbonate resins, polycyanate ester modified with diglycidyl ether of novolac resins, and polycyanate ester modified with cresol novolac resins.

15. A wet friction material for transmission couplings comprising a modified cyanate ester cured fabric formed from a braided fabric from continuous, untwisted filament yarn.

16. The transmission coupling of Claim 15, in which the modified cyanate ester resin content in the fabric as cured is about 10% - 18% by weight of the cured resin based on the combined weight of fabric and cured resin.

17. The transmission coupling of Claim 12, in which the modified cyanate ester resin content in the fabric as cured is about 12% - 17% by weight of the cured resin based on the combined weight of fabric and cured resin.

18. The composite material of Claim 1, comprising a yarn end count of 1,000 - 24,000 continuous filaments.

19. The composite material of Claim 1, comprising a yarn end count of about 3,000 - 12000 continuous filaments.

20. The composite material of Claim 1, comprising a cured material thickness of about 0.015 - 0.080 inches.

21. The composite material of Claim 1, comprising a cured material thickness of about 0.024 - 0.028 inches.

22. The composite material of Claim 1, comprising a cured material thickness of about 0.015 - 0.080 inches and an end count of about 3,000 - 12,000 continuous filaments.

23. The composite material of Claim 1, comprising a cured material thickness of about 0.024 - 0.028 inches, and an end count of about 6,000 - 12,000 continuous filaments.

24. The composite material of Claim 1, in which the modified, cyanate ester resin or oligomer is cured.

25. The composite material of Claim 1, comprising at least two layers of material adhesively bonded together.

26. A method of forming a composite suitable for use as a wet friction coupling in applications selected from the class consisting of transmission couplings, automatic lockers, limited slip differentials, smart clutches, synchronizers, brakes and the like, comprising impregnating a plain woven fabric with a modified cyanate ester oligomer, the fabric being formed from a continuous, untwisted carbon filament yarn having an end count of about 3,000 - 12,000, the modified cyanate ester resin or oligomer as cured in the fabric being about 10% - 50% based on the weight of the fabric and cured resin, and the composite thickness being about 0.015 - 0.080 inches.